**Application No.:** 

10/536,621

Filing Date:

May 26, 2005

## **AMENDMENTS TO THE CLAIMS**

Please amend the claims as follow. Insertions are shown <u>underlined</u> while deletions are struck through.

1 (currently amended): An apparatus for chemical mechanical polishing of material to be polished in conjunction with the material to be polished, comprising said material to be polished and a polishing pad used in chemical mechanical polishing and having a polishing region and a light-transmitting region, said polishing pad having at least one of the following characteristics: i) light transmittance in the light-transmitting region throughout the wavelength range of 400 to 700 nm is 50% or more; or ii) a thickness of the light-transmitting region is 0.5 to 4 mm, and light transmittance in the light-transmitting region throughout the wavelength range of 600 to 700 nm is 80% or more;

wherein the light-transmitting region is arranged between a central portion and a peripheral portion of the polishing pad, and a length (D) of the light transmitting region in a diametrical direction is 3 times or more longer than a length (L) in a circumferential direction, wherein a length (D) in a diametrical direction is 1/4 to 1/2 relative to the diameter of a material to be polished, and a scatter of the thickness of the light-transmitting region is 100 µm or less

wherein materials for forming the polishing region and the light-transmitting region are polyurethane resin, and the polyurethane resin as the material for forming the polishing region and the polyurethane resin as the material for forming the light-transmitting region are different materials but produced from the same kinds of organic isocyanate, polyol and chain extender, and

wherein the polyurethane resin as the material for forming the light-transmitting region does not contain aromatic polyamine and the material for forming the light transmitting region is non-foam,

wherein a material for forming the polishing region is fine-cell foam.

2 (previously presented): The polishing pad according to claim 1, wherein a rate of change of the light transmittance in the light-transmitting region in wavelengths of 400 to 700 nm represented by the following equation is 50% or less:

the rate of change (%) =  $\{(\text{maximum transmittance in } 400 \text{ to } 700 \text{ nm} - \text{minimum transmittance in } 400 \text{ to } 700 \text{ nm}\} \times 100.$ 

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3 (previously presented): The polishing pad according to claim 1, wherein the light transmittance in the light-transmitting region at a wavelength of 400 nm is 50% or more, and the transmittance in the light-transmitting region throughout the wavelength range of 500 to 700 nm is 90% or more.

4 (previously presented): The polishing pad according to any one of claim 1, wherein a difference among respective light transmittances in the light-transmitting region in 500 to 700 nm is 5% or less.

5-6 (canceled)

7 (previously presented): The polishing pad according to claim 1, wherein a shape of the light-transmitting region is rectangular.

8 -12 (canceled)

13 (previously presented): The polishing pad according to claim 1, which does not have an uneven structure for retaining and renewing an abrasive liquid on a surface of the light-transmitting region on a polishing side.

14 (canceled)

15 (previously presented): The polishing pad according to claim 1, wherein a surface of the polishing region on a polishing side is provided with grooves.

16 (currently amended): The polishing pad according to claim  $14\underline{1}$ , wherein an average cell diameter of the fine-cell foam is 70  $\mu m$  or less.

17 (currently amended): The polishing pad according to claim 14\_1, wherein a specific gravity of the fine-cell foam is 0.5 to 1.0 g/cm<sup>3</sup>.

18 (currently amended): The polishing pad according to claim 14<u>1</u>, wherein a hardness of the fine-cell foam is 45 to 65° in terms of Asker D hardness.

19 (currently amended): The polishing pad according to claim 44\_1, wherein a compressibility of the fine-cell foam is 0.5 to 5.0%.

20 (previously presented): An apparatus for chemical mechanical polishing of material to be polished in conjunction with the material to be polished, comprising said material to be polished and a polishing pad used in chemical mechanical polishing and having a polishing region and a light-transmitting region, said polishing pad having at least one of the following characteristics: i) light transmittance in the light-transmitting region throughout the wavelength

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range of 400 to 700 nm is 50% or more; or ii) a thickness of the light-transmitting region is 0.5 to 4 mm, and light transmittance in the light-transmitting region throughout the wavelength range of 600 to 700 nm is 80% or more;

wherein the light-transmitting region is arranged between a central portion and a peripheral portion of the polishing pad, and a length (D) of the light transmitting region in a diametrical direction is 3 times or more longer than a length (L) in a circumferential direction, wherein a length (D) in a diametrical direction is 1/4 to 1/2 relative to the diameter of a material to be polished, and a material for forming the polishing region is fine-cell foam, wherein a compression recovery of the fine-cell foam is 50 to 100%

wherein materials for forming the polishing region and the light-transmitting region are polyurethane resin, and the polyurethane resin as the material for forming the polishing region and the polyurethane resin as the material for forming the light-transmitting region are different materials but produced from the same kinds of organic isocyanate, polyol and chain extender, and

wherein the polyurethane resin as the material for forming the light-transmitting region does not contain aromatic polyamine and the material for forming the light transmitting region is non-foam.

- 21 (currently amended): The polishing pad according to claim 14\_1, wherein a storage elastic modulus of the fine-cell foam at 40°C at 1 Hz is 200 MPa or more.
- 22 (withdrawn): A method of producing a semiconductor device, which comprises a step of polishing a surface of a semiconductor wafer with the polishing pad recited in claim 1.